

Title of the Invention

RELEASABLE LOCKING DEVICE

Cross-Reference to Related Application

5 This application is a continuation of United States Patent Application Serial No. 10/263,823, which was filed on October 3, 2002, *now U.S. Patent No. 6,679,393.*

Technical Field of the Invention

10 This invention pertains to a releasable locking device, which has an intended use at a beam-to-column connection in a storage rack, such as a pallet rack. This invention also pertains to a storage rack, such as a pallet rack, which comprises the releasable locking device.

Background of the Invention

15 In a storage rack, it is common to connect a beam to a column via a flanged member having a side flange welded to one end of the beam and a front flange, from which fasteners having inner heads project into similarly shaped apertures in a front wall of the column. Commonly, the apertures are shaped so that the inner heads of the fasteners can pass through upper regions of the apertures but not through lower regions of the apertures. Thus, the flanged member must be lifted to permit the inner heads of the fasteners to pass through upper regions of the apertures.

20 At an early date, it was realized that if the beam or the flanged member were struck by an object, such as a pallet, as the object was being lifted, the object could dislodge the flanged member from the column unless a latching or locking device was provided. Various latching or locking devices have been disclosed for latching or locking beams to columns.

25 Many prior patents disclose such latching or locking devices at beam-to-column connections in storage racks. One example is disclosed in United States Patents No. 5,624,045, in which the fasteners are described as connecting pins and